

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 09/848,520  
Applicant(s) : Eric C. Berg et al.  
Filed : May 3, 2001  
Title : Computer Apparatuses And Processes For Analyzing A  
System having False Start Events  
TC/A.U. : 2128  
Examiner : Fred O. Ferris III  
Conf. No. : 7535  
Docket No. : 8070ML\$  
Customer No. : 27752

DECLARATION OF JONATHAN S. TANUnder Rule 1.132

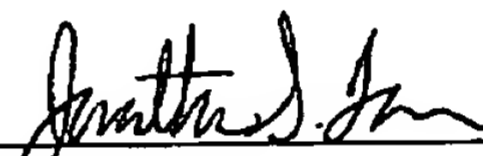
1. I, Jonathan S. Tan, declare that:
2. I have a B.S. in Chemical Engineering (1989) from The California Institute of Technology, in Pasadena, California, a M.S. in Chemical Engineering (1992) from The Massachusetts Institute of Technology, in Cambridge, Massachusetts, and a Ph.D. in Chemical Engineering (1996) from The Massachusetts Institute of Technology, in Cambridge Massachusetts. My Ph.D. dissertation was "A Quantitative Approach for Continuous Improvement in Process Safety and Reliability".
3. I am employed as the Reliability Research Scientist in research and development for various organizations at The Procter & Gamble Company since 1996, including Corporate Reliability Engineering and External Business Development & Global Licensing. I have previous work experience for the Environmental Protection Agency (1986), Nestle (1989), Dow Chemical (1990), General Electric (1990), and the Brookhaven National Laboratory (1992) in the Nuclear Reactor Safety Department.

4. I have reviewed the U.S. Patent Office Action in the above-entitled patent application. I am familiar with the BlockSim 6.0 program, and I reviewed the article attached thereto entitled "Empirical Bayes Estimation of the Reliability for Nuclear-Power Plant Emergency Diesel Generators", Martz et al Technometrics, Vol 38, No. 1, February 1996.
5. I have used an updated version of the BlockSim program (Version 6.0), and have tried to enter zero uptime data in the BlockSim program myself. If you have zero uptimes in your raw data set, then BlockSim's parameterization software called Weibull++ will crash, because it cannot handle zeros in the raw data. I have confirmed while attending training presented by Pantelis Vassiliou, the CEO of Reliasoft (the maker of BlockSim software) and Adamantios Mettas, the software developer of BlockSim, and from personal study, that Block Sim cannot use zero uptimes, and there is no capability in Block Sim to model zero uptimes.
6. It is my opinion that a person of ordinary skill in the art of design of simulation processes would not have modified the teachings of BlockSim relating to analyzing failure modes of a system inclusive of computing uptime/downtime, with the teachings of Martz relating to analysis of data inclusive of false start events as suggested in the Office Action.
7. There are several reasons that I believe that a person of ordinary skill in the art would not have made the modification suggested in the Office Action. First, I am not aware of any manufacturing systems prior to the filing of the pending patent application that collect zero uptime data on every attempt to restart a manufacturing line when the manufacturing line does not produce a product. Second, the BlockSim software does not have the capability to model zero uptimes, and in fact crashes when the raw data contains zeroes. This indicates that the BlockSim software never contemplated the suggested modification. Third, the Martz article does not deal with a manufacturing system. It would not have been obvious to a person of ordinary skill in the art to have taken the study on the reliability of emergency diesel generators to start on demand, and to apply the teachings therein to attempts to restart a manufacturing line where the manufacturing line starts, but does not produce a product. It is my opinion that to combine the references in the manner suggested would have involved looking at the teachings of the pending application with hindsight. The present claims are

directed to false start events having a zero uptime. This refers to the failure of the process to reach a state wherein it produces a product according to specification. Therefore, there can be some non-zero time consumption, and consumption of raw materials and other resources associated with a zero uptime event. I believe that this, in itself, is a novel idea in that most practitioners would tend to interpret a "zero uptime" event as one in which no appreciable time nor resources were consumed.

8. I further declare that all statements made herein are of my own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that the statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, Title 18, of the United States Code and that such willful false statements may jeopardize the validity of the above-identified application or any patent issue thereon.

Dated: 5-31-6

  
Jonathan S. Tan